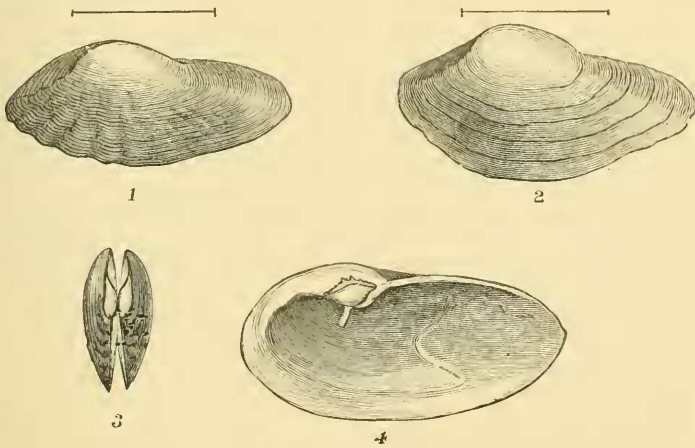


NOTE ON *PHOLAS COSTULATA*, GOODALL.

By the Right Hon. Lord WALSHINGHAM, M.A., LL.D., F.R.S., etc.

Read 10th March, 1916.

IN 1890 I communicated to the Norfolk and Norwich Naturalists' Society some remarks on a species of *Pholas* dredged by my father off Hill Head, near Gosport, about 1819, and these were published in the fifth volume of the Society's Transactions (pt. 1, pp. 79-86, with figures) accompanied by two interesting letters from Dr. J. Goodall (then Provost of Eton College), to whom the specimens had been sent, and who suggested (*loc. cit.*, p. 80) the name *Pholas costulata*, since he considered it a distinct species allied to *P. candida*. In the same communication is included a letter from Mr. Edgar A. Smith, I.S.O. (then in charge of the Conchological Collections at the British Museum, Natural History), to whom I sent the original specimens, and who expressed the opinion that they represented a depauperated form of *P. candida*.



*Pholas costulata*, Goodall.—Original woodcut, from the Trans. Norf. and Norwich Nat. Soc., vol. v, pt. 1, 1890, p. 85; taken from Mr. Smith's drawings. Figs. 1 and 2, two sketches showing sculpture and variation in form (enlarged). Fig. 3, dorsal view (natural size), accessory plate removed. Fig. 4, interior, showing hinge characters, etc.

On December 28th last I found on the beach at Hove, Sussex, a small block of chalk, evidently bored by *Pholas*, and cut from it three specimens, two small and one larger (of which one valve was unfortunately broken). I at once recognized these as similar to the species in my grandmother's collection. I searched for several days on the same beach and found many blocks of chalk and shale, containing numerous specimens of *P. parva* and some other shells, but *P. candida* was not represented, nor could I find any further specimens of *P. costulata*.

*Pholas costulata* differs from *P. candida* in the more convex ventral margin; in the less evenly rounded anterior end, which is more inclined to become angular; in the more attenuated and more widely gaping posterior end; and in the greater thickening of the shell on the dorsal margin by the base of the internal tooth or myophore; as well as in the external ribbing, as pointed out by Dr. Goodall.

I am not greatly concerned with the question whether conchologists will accept the name *costulata*, Goodall, as representing a species truly distinct from *candida*, but I have seen no intermediate forms, and should at once recognize any similar specimens. My personal interest in the subject is specially due to the unexpected coincidence that again connects it with my family. It is somewhat remarkable that a grandson, at the age of 72, should practically rediscover a British shell known to his grandmother as a new species in 1820, which has escaped recognition and publication from that time to this, except in the paper above mentioned.

P.S.—On the 6th of October, 1916, I spent several hours in searching for more specimens of *Pholas costulata*. Failing to find it on the beach where I had first met with it, I visited the coast between Black Rock and Rottingdean to the east of Brighton. Beneath the cliffs, at low tide, many acres of broken chalk-beds are exposed, and these are plentifully bored by *Pholas*. *P. parva* was in great abundance, solid and detached blocks of chalk containing many examples; in the latter case no living specimens were found. *P. candida* also occurred, but quite sparingly. I was unable to discover a single specimen of *P. costulata*, and am inclined to think that those found at Hove must have come from some other, submarine bed of chalk, rather than from that underlying the cliffs toward Rottingdean.